



## **TECHNICAL INFORMATION**

**Product** : FR1011 Brushable Ceramic Lining coating is a two-part, quick setting polymer resin compound with micro ceramic content. FR1011 has been developed for the protection of steel and metallic surfaces subject to wear, abrasion and chemical attack.

FR1011 is also used to reduce / prevent friction and encourage smooth material flow over steel and metallic surfaces.

The paint-on capability of FR1011 makes it a convenient, easy-to-use lining or protective coating with a smooth and glossy finish and high coverage utilisation.

FR1011 is formulated and produced with zero content of harmful organic solvents .

Colour	: Resin - White : Hardener – Clear / Greenish
Mixing Ratio	: By Weight -100 parts resin: 9 parts hardener : By volume -100 parts resin: 5 parts hardener
NOTE	: Mix resin and hardener for 3 minutes. Use a spatula, or other flat-edged implement. Increases in temperature will shorten the working time, geltime and setting time. : Decreases in temperature will extend the working time, geltime and setting time.
Specific Gravity @ 25°C	: Mixed Compound 1,82-1,84 g/cm <sup>3</sup>
Viscosity @ 25°C	: 8500 cps ( mixed compound )
Practical Working Time (Pot Life)	: 250g mass @ 25°C =10-15 minutes
Geltime @25°C	: 30 minutes on a 5mm thick lining
Setting time@ 25°C	: 20mm thick cast = 35 minutes
Minimum Application Temperature	: 7°C ( need to pre-warm at lower temps )
Coverage	: 1,8 kg / m <sup>2</sup> ( 1mm thick lining )

## **TYPICAL CURED PROPERTIES**

Hardness after 24 hours @ 25°C	: Shore D 85
Shrinkage After Cure	: Maximum 0,5%
Elongation ( Average )	: 1 %
Tensile Strength	: ( DIN 53455 ) 45 MPA
Impact Strength	: ( DIN 53453 ) >10 kJ/m <sup>2</sup>
Compressive Strength	: ( DIN 53454 ) Average 85-90 MPA
Flexural Strength	: ( DIN 53452 ) 90-100 MPA
Lap Shear Strength	: ( ISO 4587 ) 6,5 MPA on cleaned & roughened mild steel

Heat Resistance : 85-90°C

Adhesion	: To cleaned and roughened metal, steels and concrete : excellent
Chemical Resistance	: Excellent against water, oil, grease, detergents, diluted acids and alkaline. Resistant to solvents, aliphatic alcohols and aromatics. Against esters, ketones and chlorinated hydrocarbons, tests are recommended.
Water Absorption	: Immersion for 24 hrs @ 25°C in diluted water - maximum absorption 0,2%

### **HANDLING PROPERTIES**

FR1011 shows no dermatitic properties and has a very low irritation potential at room temperature. Low toxicity at ambient temperatures. However, good industrial hygiene must be observed. See Precautions for Use and Health Hazard Information.

### **STORAGE STABILITY**

FR1011 must be stored under dry and cool conditions in tightly sealed containers. The shelf life is 12 months. Store in cool, dry conditions.

### **NOTICE**

The technical specification and/or our technical advice whether verbal, in writing or by trials is given in good faith and based on our test results obtained but without warranty.

It does not release the user from the obligation of testing the products supplied by us or any third party as to the suitability of the intended application. The application, use and processing of the products are beyond our control and Elite Chemical Industries ( Pty ) Ltd legal obligation in respect of any sale of it's products shall be determined by the terms of it's conditions of sale.